

# Update on ESA Pesticide Consultations

June xx, 2017

# Agenda

- Brief background and history of ESA-related issues
- National Academy of Sciences (NAS) report implementation
- Litigation and settlement agreements
- Stakeholder concerns
- Challenges
- Next steps

# Background: Endangered Species Act (ESA)

## Obligations for Pesticide Decisions

- Why are pesticide decisions impacted by the ESA?
  - Under Section 7(a)(2) of the ESA, Federal agencies must ensure that the “actions” they authorize will not result in jeopardy or adversely modify designated critical habitat for species listed as endangered or threatened by the U.S. Fish and Wildlife Service (FWS) and/or the National Marine Fisheries Service (NMFS) (jointly the Services)
  - For EPA’s Office of Pesticide Programs (OPP), the actions we authorize are the sale, distribution, and use of pesticides according to the product labeling
- Conventional pesticide decisions impacted by ESA:
  - Registration review actions (~50-60/yr)
  - New chemical registrations (~10-12/yr)
  - New use registrations (~50-60/yr)
  - Section 18 Emergency Exemptions (~100/yr)
  - Section 24(c) Special Local Need (SLN) registrations (~200/yr)

# Background

- ESA Authority

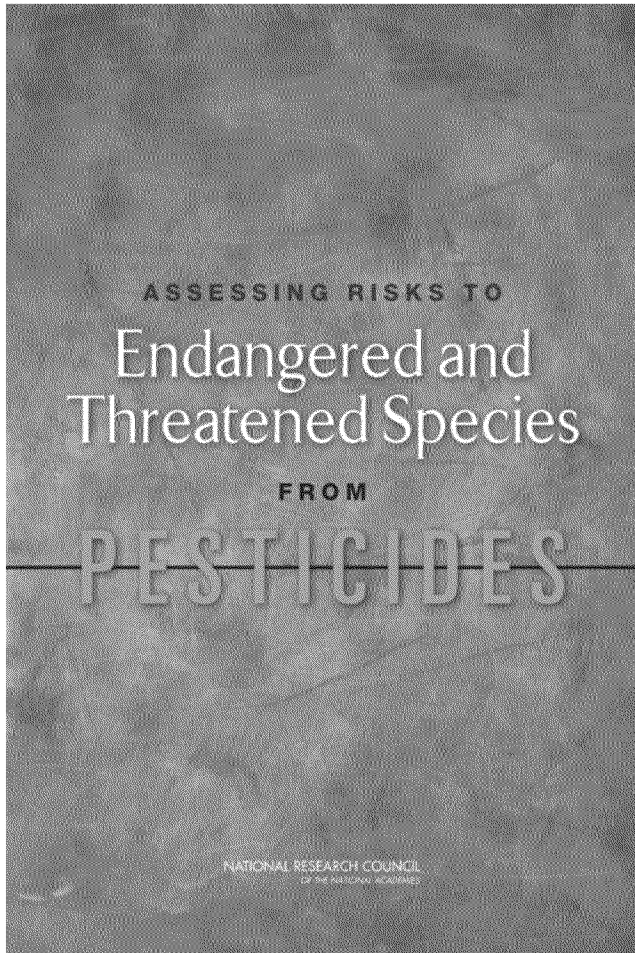
- Section 7(a)(2) of ESA: EPA makes “effects determination” for individual listed species in a biological evaluation (BE):
  - No effect (NE) – no consultation required
    - Overview Document-compliant method (2004): Risk Quotient (RQ) < listed species Level of Concern (LOC)
    - NAS-recommended method (2013): No geospatial co-occurrence of pesticide use footprint with listed species range
  - Not likely to adversely affect (NLAA) – informal consultation; concurrence from Services
  - Likely to adversely affect (LAA) – formal consultation including Biological Opinion (BiOp) from Services (jeopardy/no jeopardy determination)

- Nationwide consultations must consider direct/indirect effects to 1850 listed species and 600+ designated critical habitats

# Background - OPP History with the Services

- Disagreement on:
  - Scientific methods to assess the risk of pesticides to listed species
  - Specific actions needed to protect listed species
- EPA has completed over 200 chemical-specific BEs as the result of court-imposed ESA obligations. The Services have issued 9 BiOps based on court-mandated schedules. None of these BEs or BiOps were nationwide evaluations.
  - Time required to complete BiOp is lengthy (typically 2-3 yrs)
  - EPA has often been unable to follow the science logic behind the BiOps
- Of 7 BiOps for listed Pacific Northwest salmon species submitted by NMFS (covering 32 chemicals), EPA has implemented only one (thiobencarb); NMFS 1<sup>st</sup> BiOp was overturned.
  - Reasonable and Prudent Alternatives (RPAs)/Reasonable and Prudent Measures (RPMs) not feasible/practical to implement:
    - Arbitrary spray drift buffers
    - Lack of a target concentration where effects to listed salmon do not cause jeopardy
- EPA has implemented 2 BiOps submitted by FWS for Rozol and Kaput rodenticides
  - Geographically-specific Bulletins which restrict product use or timing of application

# NAS Report Implementation



- Released on April 30, 2013
- Developed in response to a joint request by EPA, NMFS, FWS, and USDA in 2011 to address scientific areas of disagreement
- Recommended 3-step process that integrates ecological risk assessment methods with ESA Section 7 consultations
- Goal: unified interagency approach with agreement on process across all steps
- Multiple interagency workshops where interim methods for EPA's BEs (Steps 1 and 2) have been developed
- Several stakeholder meetings held to engage public on potential refinements
- Interim methods need streamlining to meet available resources
- Final BEs for chlorpyrifos, diazinon, and malathion released in January 2017

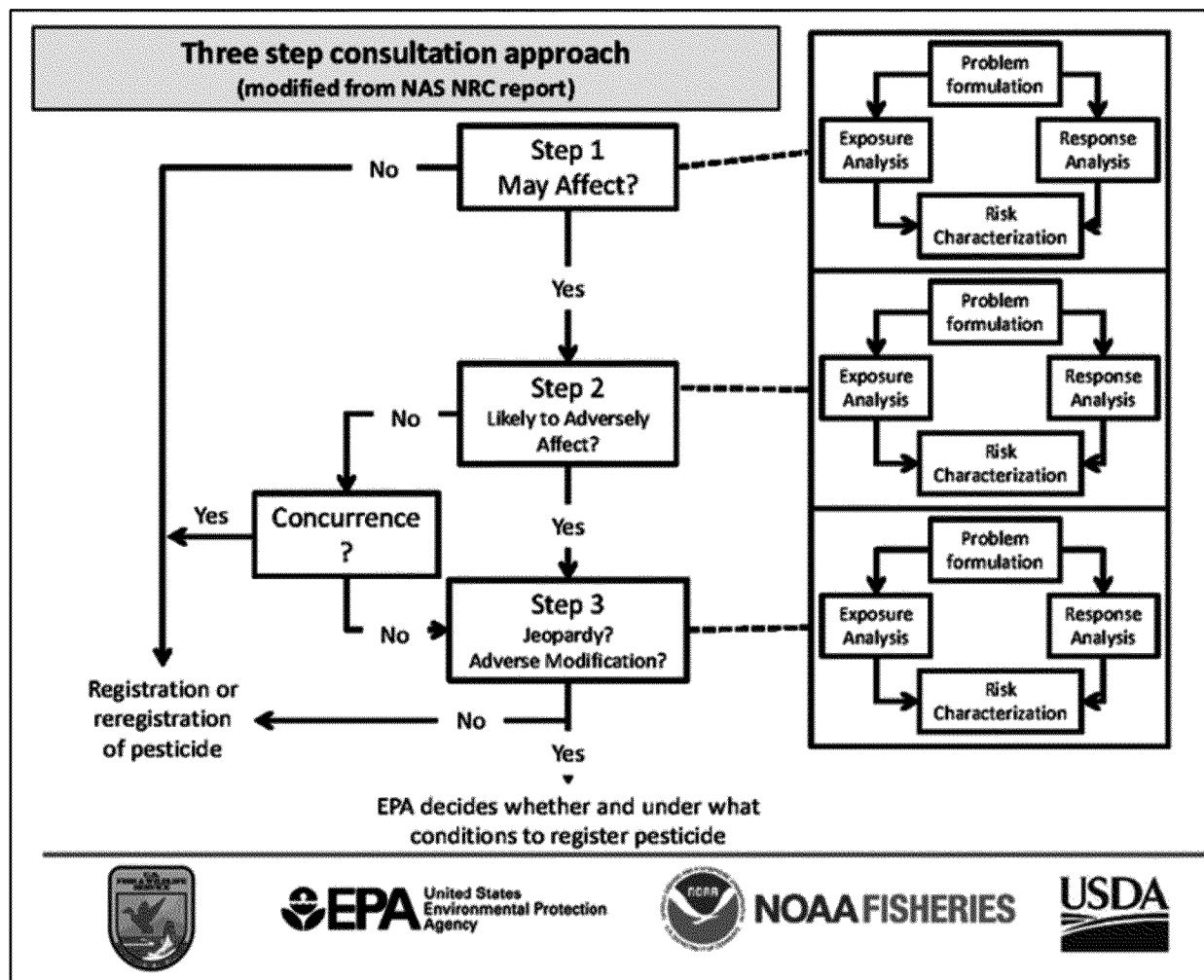
# NAS Report Implementation

- The **Biological Evaluation** (BE) determines whether registered pesticides adversely affect one or more individuals of a listed species and/or their designated critical habitats
  - **Step 1** [“No Effect/May Affect” Determination]
  - **Step 2** [“Not Likely to Adversely Affect (NLAA)/Likely to Adversely Affect (LAA) Determination]
- The **Biological Opinion** (BiOp) determines whether the registration of a pesticide is likely to jeopardize the continued existence of a listed species or result in the destruction or adverse modification of its designated critical habitat
  - **Step 3** [“Jeopardy/No Jeopardy” Determination and “Adverse Modification/No Adverse Modification” Determination]



# Methodology for Pesticide Consultations

The draft process follows the 2013 NAS recommendations for a 3-step approach:

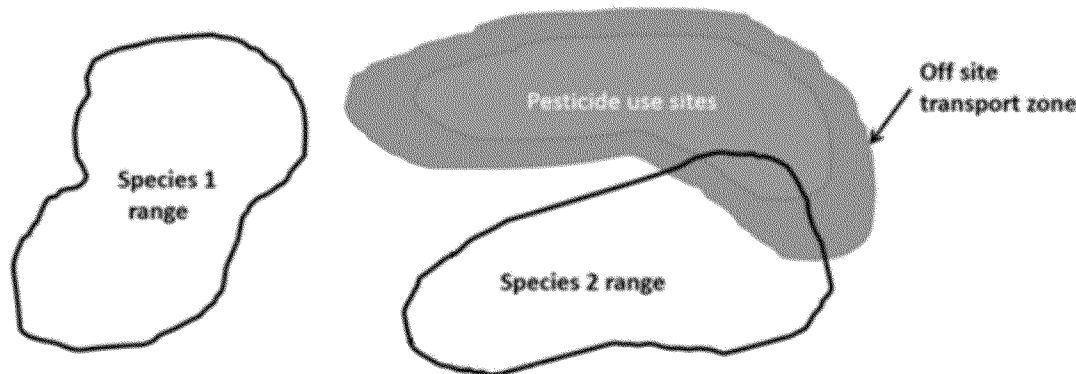


The draft BE process was developed in close coordination with the Services – EPA has worked very hard to provide information in Steps 1 and 2 that the Services said they would need to conduct Step 3.



# Overview of the BE Method – Step 1

- Two sets of spatial data are compared
  - Pesticide exposure area
    - Based on national-level GIS data to identify potential use sites
    - Buffered to account for transport to levels that potentially represent effects (based on most sensitive toxicity data)
  - Species range – provided by Services
- No Effect /May Affect determination
  - Based on whether or not there is overlap of the potential exposure area and the species range
    - No Effect (*i.e.*, no overlap) – no need to seek consultation with Services
    - May Affect (*i.e.*, overlap) – move to step 2



# Overview of the BE Method –Step 2

- Step 2
  - Weight-of-Evidence Approach
    - Risk and confidence evaluated for multiple lines of evidence (mortality, growth, reproduction and other sublethal effects) based on estimated exposure and effects thresholds
    - Incident data
    - Qualitative discussion of mixtures and abiotic influence (e.g., temperature, pH) on toxicity
  - Intended to answer the questions:
    - Is there a potential for an individual's fitness to be reduced?
    - Is there a potential for important physical and biological features of a species habitat to be adversely affected?
  - Describes the process for making Likely to Adversely Affect(LAA)/Not Likely to Adversely Affect (NLAA) Determinations
    - LAA – species/critical habitat moves to Step 3 (jeopardy/adverse modification determination)
    - NLAA – concurrence from the Services

## Step 3 – Services BiOps

- Services are currently working on BiOps (Step 3) for chlorpyrifos, diazinon and malathion
  - Proposed delivery date of June 30, 2017 to EPA
- EPA and Services have had several workshops discussing the methodology for population-level risk assessments of endangered species

### **Ex. 5 - Deliberative Process**

# Litigation and Settlement Agreements

## **Ex. 5 - Deliberative Process**

# OPP Approach for ESA Compliance

## **Ex. 5 - Deliberative Process**

# **Ex. 5 - Deliberative Process**

# Stakeholder Concerns

- April 13, 2017 letter from registrants of 3 pilot OPs to political leadership of EPA and the Services requesting:

## **Ex. 5 - Deliberative Process**

- Registrants/Growers:

## **Ex. 5 - Deliberative Process**

- NGOs

## **Ex. 5 - Deliberative Process**

# Challenges

## **Ex. 5 - Deliberative Process**



## Next Steps: Future Consultations

# Ex. 5 - Deliberative Process



# Background: ESA Timeline

- **April 2013** – NAS report issued
- **November 2013** – release of interim scientific methods for implementing NAS recommendations
- **April 2016** - First draft BEs posted for public comment (chlorpyrifos, malathion, and diazinon)
- **June 2016** – 2-day stakeholder workshop
- **September 2016 to present** – Interagency workshops on BO process
- **September 2016** – Stakeholder meeting on mosquitocides uses
- **January 2017** – Final BEs for chlorpyrifos, malathion, and diazinon
- **April 2017** – Industry requests current pesticide consultations be put on hold
- **Spring 2017 (on hold)** – Release of draft BEs for carbaryl and methomyl
- **June 2017 (expected)** – Draft BOs for chlorpyrifos, malathion, and diazinon
- **December 2017** – Final BOs due for chlorpyrifos, malathion, and diazinon

## **Ex. 5 - Deliberative Process**